

MULTIMEDIA



UNIVERSITY

STUDENT IDENTIFICATION NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2018/2019

### BAC3674 – ADVANCED MANAGEMENT ACCOUNTING ( All sections / Groups )

27 May 2019  
9 AM – 12 PM  
( 3 Hours )

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#### INSTRUCTIONS TO STUDENTS

1. This question paper consists of 7 pages (excluding cover page) with 4 questions only.
2. Attempt ALL FOUR questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answer in the Answer Booklet provided.

**Question 1**

Geely Automotives manufactures two automotive parts: A and B at one of its plants. A review of the company's accounting records revealed the following per-unit costs and production volumes:

	<u>A</u>	<u>B</u>
Production volume (units)	<u>2,500</u>	<u>5,000</u>
Direct material	RM 40	RM 60
Direct labor:		
2 hours at RM12	24	
3 hours at RM12		36
Manufacturing overhead:		
2 hours at RM93	186	
3 hours at RM93		279

Manufacturing overhead is currently computed by spreading overhead of RM1,860,000 over 20,000 direct labor hours. Management is considering a shift to activity-based costing (ABC) in an effort to improve the firm's accounting procedures, and the following data are available:

<u>Cost Pool</u>	<u>Cost</u>	<u>Cost Driver</u>	<u>Cost Driver Volume</u>		
			<u>A</u>	<u>B</u>	<u>Total</u>
Setups	RM 240,000	Number of setups	100	20	120
General factory	1,500,000	Direct labor hours	5,000	15,000	20,000
Machine processing	<u>120,000</u>	Machine hours	2,200	800	3,000
	<u>RM1,860,000</u>				

Geely determines selling prices by adding 40% to a part's total cost.

**Required:**

- Compute the per-unit cost and selling price of part B by using Geely's current costing procedures. (7 marks)
- Compute the per-unit overhead cost of part B if the company switches to activity-based costing. (7 marks)
- Compute the total per-unit cost and selling price of part B under activity-based costing. (2 marks)

**Continued....**

d) Geely has recently encountered significant international competition for part B, with considerable business being lost to very aggressive suppliers. Will activity-based costing allow the company to be more competitive with part B from a price perspective? (2 marks)

e) Will the cost and selling price of part A likely increase or decrease if Geely changes to activity-based costing? No calculations are necessary. (2 marks)

f) Compare ABC with the company's current system, focusing on the number of cost pools and cost drivers, costing accuracy, and cost distortion. No calculations are necessary. (3 marks)

g) Define the term "cost driver" and discuss the factors that are important in the selection of appropriate cost drivers. (2 marks)

[Total 25 marks]

### Question 2

#### Part A

WC Sdn. Bhd. (WC) produces skateboards that are sold to customers in Malaysia. Currently, the company is operating at about 65% capacity and is earning a satisfactory return on investment.

Several weeks ago, WC received an offer from Get Fit Ltd. (GF) of Singapore to purchase 11,000 skateboards if the order can be completed in 3 months.

The cost data for WC's Winner model skateboard are:

	RM per unit
Direct material	16.40
Direct labour (0.125 hours @ RM36/hour)	4.50
Total production overhead (37.5% is variable)	20.00
Total production cost	40.90

Additional costs incurred in connection with sales of skateboard are sales commission of 5% and freight expense of RM1 per unit. However, WC does not pay sales commission on special orders that come directly to management.

Continued....

The following additional information is available:

- 1) In determining selling prices, WC adds 30% markup to product cost. This provides a RM53.17 selling price for the skateboard. The marketing department, however, has set the current selling price at RM53 to maintain market share.
- 2) GF has offered to buy at RM40.00 per unit because of the large quantity it is willing to buy.
- 3) GF requires a modification of the design that will allow a RM4.20 reduction in direct material costs.
- 4) WC production department believes that it can handle GF order without disrupting its scheduled production. The order, would, however, require additional fixed factory overhead of RM2,500 per month in the form of supervision costs and RM3,500 for the purchase of special device to produce these units. The device will be discarded once the special order is completed.
- 5) If accepted, shipment will be made in three months' time, FOB shipping point, i.e. freight expense will be paid by GF.
- 6) WC will allocate RM3,600 of existing fixed administrative costs to the order as 'part of the cost of doing business'.

All computations are to be rounded to two decimal points.

**Required:**

- a) Determine how many direct labour hours will be required to fill the GF order. (1 mark)
- b) Prepare an analysis showing the impact on operating profits of accepting the special order from GF. (6 marks)
- c) Calculate the minimum unit price that WC could accept for GF order without reducing operating income. (1 marks)
- d) Suppose now that if GF order were accepted, existing sales of 1,000 skateboards to regular customers will be lost (at regular selling price of RM53 per unit). All other facts are as given in the question. What is the revised minimum price per unit for GF special order? (8 marks)
- e) Identify FIVE strategic (qualitative) factors that WC should consider before accepting the GF order. (5 marks)

**Continued....**

**Part B**

Cost management is the development and use of cost management information by management accountant. Cost management information is needed for each of the four management functions; strategic management, planning and decision making, management and operational control, and preparation of financial statements.

Briefly describe how cost management information is used in the FOUR management functions.  
(4 marks)

[Total 25 marks]

**Question 3****Part A**

MMC Heavy Industries Sdn. Bhd. (MMC) uses oil field equipment for deep sea oil drilling. MMC is considering replacing some of its existing oil field equipment now to increase its drilling capacity and subsequent oil output.

The new equipment will reduce annual energy costs by RM50,000 and generate an annual increase in contribution margin of RM40,000. Incremental cash operating costs per year is RM20,000. This new equipment has expected useful life of 4 years.

The Chief Financial officer of MMC has prepared the following additional information and assumptions to support the decision:

New oil field equipment	RM
Purchase price	140,000
New machine installation costs	10,000
New machine testing/adjustment costs	10,000
Expected useful life	4 years
Expected salvage value	10,000
End of life disposal value	15,000
Depreciation method is straight line method	
Year 4 employee relocating expenses	20,000
First year employee training costs	10,000
Incremental net working capital investment, payable now and fully recoverable at the end of year 4.	20,000
Income tax rate	20%
Discount rate	10%

Continued....

The management has decided not to sell the old equipment.

The present value of RM1 is as below:

Year	1	2	3	4
Discount rate (10%)	0.909	0.826	0.751	0.683

All calculations are to be rounded up to its nearest RM.

**Required:**

- a) Determine the relevant after tax cash flows at each of the following three points:
  - i. project initiation (Year 0),
  - ii. project operation (Year 1 – 4),
  - iii. project disposal (termination, Year 4).(10 marks)
- b) Based on the workings in (a) and using the net present value method (NPV) decision model, should the company buy the new oil field equipment? (show calculations.) (5 marks)
- c) Identify and discuss any FIVE qualitative factors that the management of MMC should consider before making decision to buy the new oil field equipment. (5 marks)

**Part B**

PE Instruments Sdn. Bhd. produces fans for mini and microcomputers. As a first step to focus on quality improvements, the firm has compiled the following operating data for 2018 and 2019 (in RM'000):

Quality costs	2019 (RM'000)	2018 (RM'000)
Rework and reject	55	150
Warranty repair	100	120
Testing	120	100
Training	90	20
Supplier evaluation	40	30
Quality performance measurement	100	80
Product liability insurance	70	250
Equipment failure	30	50
<b>Total Quality costs</b>	<b>605</b>	<b>800</b>
<b>Total Sales</b>	<b>8,000</b>	<b>7,000</b>

Continued....

All calculations are to be rounded to two decimal points.

**Required:**

Prepare a cost of quality (COQ) report and classify the costs as prevention, appraisal, internal failure and external failure. Express each category subtotal as a percentage of total COQ and comments. (5 marks)

[Total: 25 marks]

**Question 4**

**Part A**

Bob's Burgers, a national fast-food chain, has experienced a number of problems in the past few years, and management is considering the adoption of a balanced scorecard as part of a turnaround effort.

**Required:**

- a. Briefly explain the concept of a balanced scorecard (BSC). What general factors are included in a typical balanced scorecard? (5 marks)
- b. Independent of your answer in requirement (a.) above, assume that Bob's is very concerned about customer satisfaction. List FOUR customer-satisfaction measures that may be appropriate for the firm (and for other fast-food providers). (2 marks)
- c. Independent of requirement (a.) above, assume that Bob's wants to return to former levels of profitability. List TWO financial measures that would allow management to assess success or failure with respect to the following goals: pay creditors on a timely basis; keep shareholders happy; and improve profitability over time at stores that have been open at least one year. (2 marks)

**Part B**

The following data pertain to Dana Industries:

Interest rate on debt capital: 9%  
Cost of equity capital: 12%  
Before-tax operating income: RM35 million  
Market value of debt capital: RM60 million  
Market value of equity capital: RM120 million  
Total assets: RM150 million  
Income tax rate: 30%  
Total current liabilities: RM15 million

**Continued....**

**Required:**

- a. Compute Dana's weighted-average cost of capital (WACC). (3 marks)
- b. Compute Dana's economic value added (EVA). (3 marks)
- c. Briefly explain the meaning of economic value added. (2 marks)

**Part C**

Pullman carries a part that is popular in the manufacture of automatic sprayers. Demand for this part is 4,000 units per year; order costs amount to RM30 per order, and holding costs total RM1.50 per unit. Pullman currently places four orders per year with its suppliers.

Management is considering the implementation of an economic order quantity (EOQ) model in an effort to better manage its inventories.

**Required:**

- a. Compute Pullman's economic order quantity. (2 marks)
- b. Compute total annual inventory costs if Pullman follows the EOQ policy. (2 marks)
- c. How much will the company save by adopting the EOQ model? (2 marks)
- d. Briefly explain the conceptual difference between the EOQ model and the just-in-time (JIT) model. Which of the two models will likely result in lower inventory holding costs for the firm, and why? (2 marks)

[Total 25 marks]

End of page.

